

MARINE LIFE FIELD GUIDE

NEPTUNE Canada

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NEPTUNE Canada

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MARINE LIFE FIELD GUIDE

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INTRODUCTION

Over the first two years of operations, NEPTUNE Canada has collected thousands of photographs and hundreds of hours of video during installation dives and from underwater cameras installed across our subsea network. This unpublished image collection, that will continue to grow, provides a unique opportunity to build an important database on deep-sea species in the Northeast Pacific.

Without an authoritative reference work adapted to the study area of NEPTUNE Canada, it is difficult to correctly identify species observed during dives. One of the first steps in discovering and understanding biodiversity is to identify the organisms. NEPTUNE Canada's team is therefore developing a visual identification guide that will help "dive loggers" improve the quality of real-time video annotations during the cruises. Eventually, the guide could be adapted for the general public and for science-oriented crowdsourcing (citizen science) projects such as Digital Fishers (<http://digitalfishers.net>).

The Marine Life Field Guide presents more than a hundred different species, which are commonly observed during our dives or by our underwater cameras, mainly at more than one thousand meters depth. Some rarely observed species are also included. For each species, we provide the best information possible, being limited by the availability of experts and the quality of the photographs. In addition, because all identifications were made from imagery, we include a rating scale to indicate confidence levels for species identifications.

The first goal of this tool is to ensure the use of a common and scientifically valid language when dive loggers, experts or not, enter annotations about marine life visible in imagery. We have therefore endeavored to keep the guide simple. For example, all species are first organized by phyla, but we have not divided phyla into lesser ranks, such as classes and orders. Instead, we have arranged species more informally, based on external similarities.

The Marine Life Field Guide is the first compilation and identification document for species observed by NEPTUNE Canada's team. The guide will be improved over the years through the addition of new species, better photographs and more complete scientific information about observed species. This new tool will contribute to increasing our knowledge of deep-sea organisms in the Northeast Pacific, including their spatial distribution and long-term variations in species abundance and community composition.

HOW TO USE THE GUIDE

Study the guide before a dive

As a “dive logger”, you should keep in mind the fact that “The more you know, the more you see.” It will always be better to study the guide before a cruise to get an idea, in advance, of what you can see in each different area. This way, you will see more species, take more and better photos, and contribute to the improvement of the guide by photographing species that we have yet to document, or those that deserve better photos.

It's better to be less precise than incorrect

After studying the guide, you can notice that some species are very similar and difficult to distinguish even when you have two pictures side by side. In some cases, it's even impossible to identify species without a specimen in your hands or without using a microscope. Looking at the confidence level selected for each species can help you to know if the identification of this species is difficult or not. If you have any doubt, it is better just annotating the right phylum (match with the chapter of the guide) or the right group (match with the subtitle of the guide). We can always later ask a specialist to identify the species.

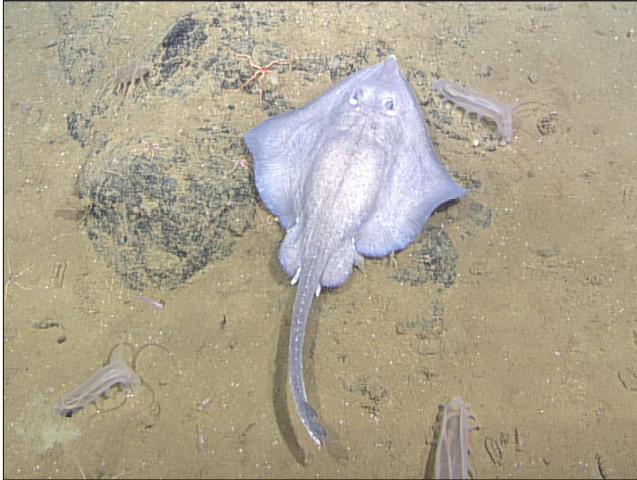
To learn more

This guide acquaints you with the species that you can see on our underwater network. For more details on these species, such as key features, we recommend that you make use of the bibliography at the end of this document.

Give your comments

Please give us your feedback and help us to identify new species yet to be discovered at:
<http://www.neptunecanada.ca/fieldguide/>.

Fields used in this guide



Deep sea skate

Bathyraja abyssicola

Location ODP 1027
Depth 2322 meters
Date 10 July 2011
Image ID 122a
Confidence ●●○

Comments

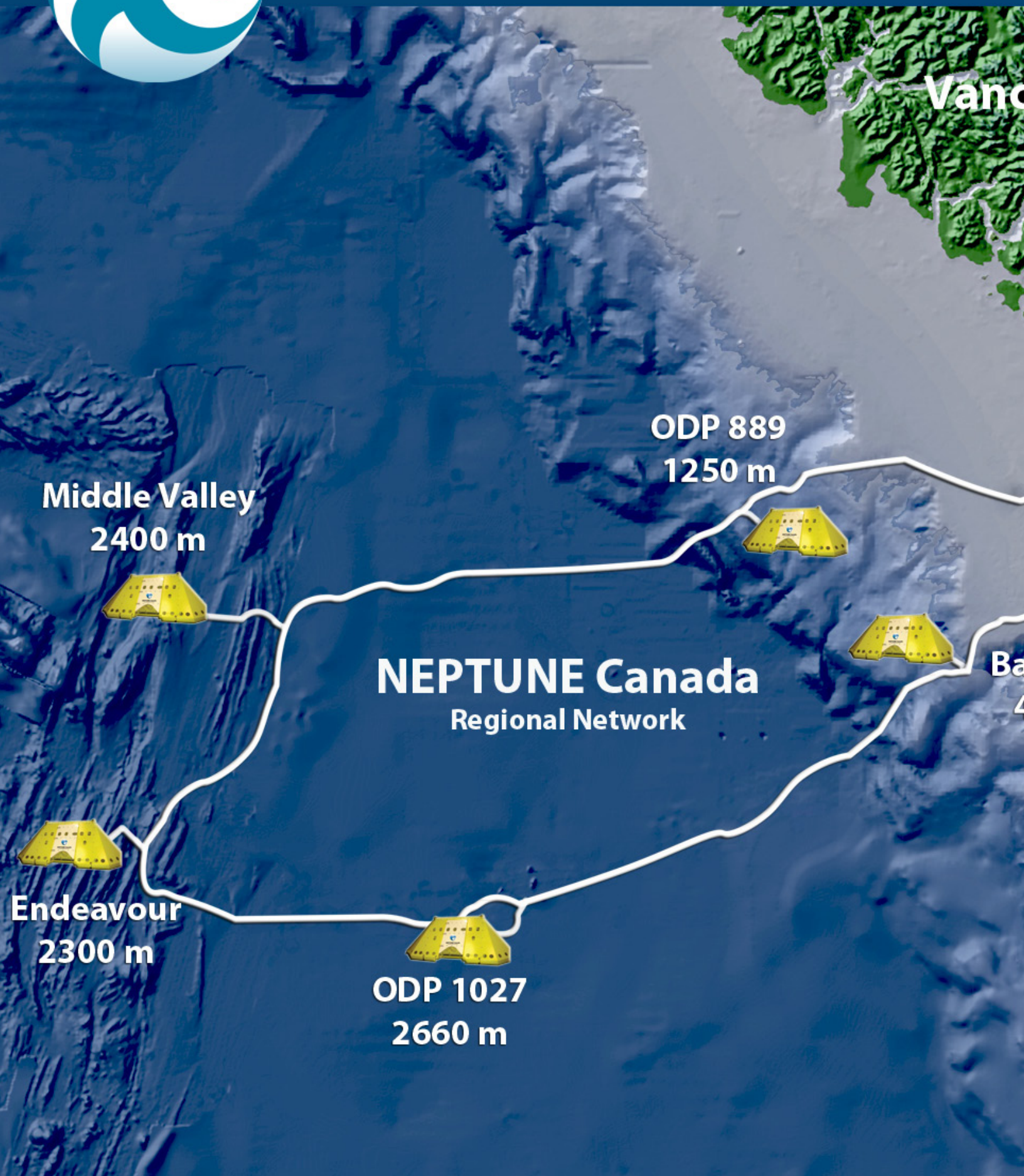
3 spines mid dorsal.

- ❶ Common name or common used taxonomic rank when the common name is undetermined.
- ❷ Scientific name. For a lower rank than the genus, we have included the information in the section “comments”.
- ❸ Photographic location (see page 10-11)
- ❹ ROV depth at which the picture was taken
- ❺ Date at which the picture was taken
- ❻ Reference number
- ❼ Rating scale indicates the confidence level about species identification
- ❽ Key features of the species, interesting behavior, diagnostic characters, etc.

* You can see two green dots on some of the pictures. It is a 10 centimeters laser scale from the ROV.



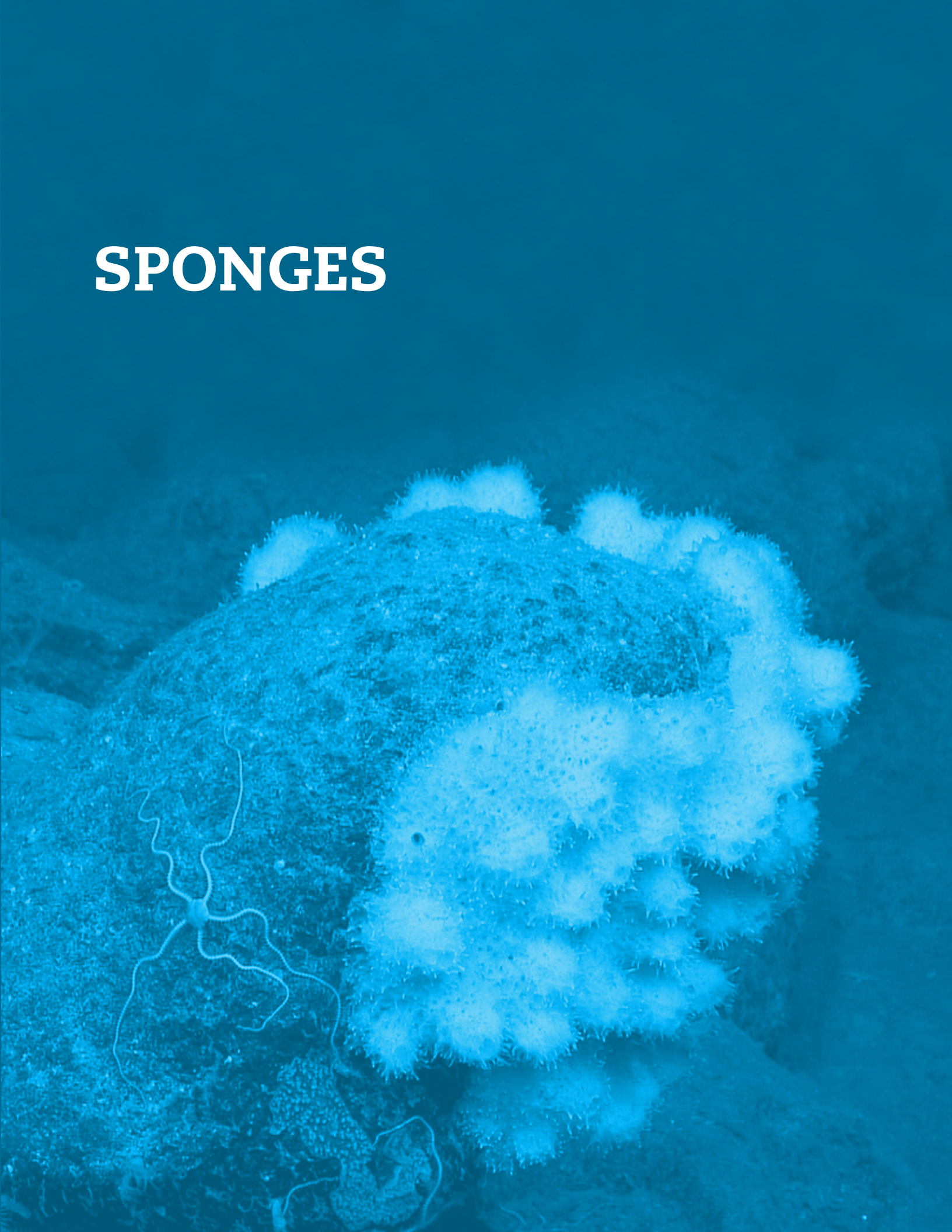
THE OCEAN NETWORK



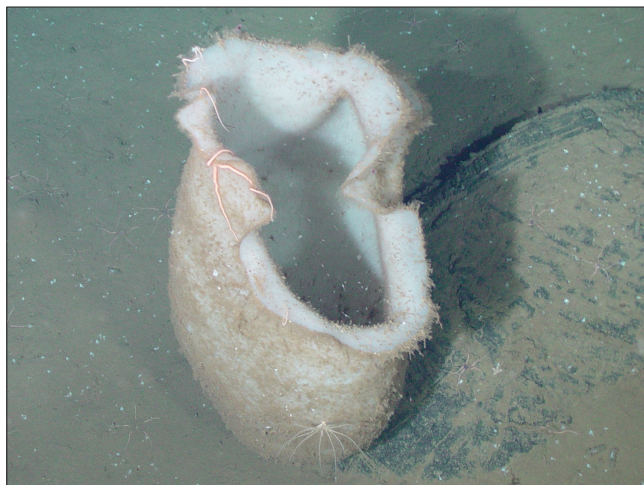
ARKS CANADA OBSERVATORY



SPONGES



GLASS SPONGES



Round lipped boot sponge

Staurocalyptus dowlingi

Location Endeavour
Depth 2308 meters
Date 19 July 2011
Image ID 1
Confidence ● ○ ○

Comments

Staurocalyptus dowlingi and *Rhabdocalyptus dawsoni* can sometimes look virtually identical in a photo in the same habitat.



Sharp lipped boot sponge

Rhabdocalyptus dawsoni

Location Endeavour
Depth 2161 meters
Date 24 July 2011
Image ID 2
Confidence ● ○ ○

Comments

Staurocalyptus dowlingi and *Rhabdocalyptus dawsoni* can sometimes look virtually identical in a photo in the same habitat.



No common name

Staurocalyptus sp.

Location Barkley Canyon
Depth 959 meters
Date 8 August 2006
Image ID 3
Confidence ● ○ ○

Comments

Many boot sponges in this area share similar morphology; an image alone is inadequate to separate them.

GLASS SPONGES

Fluted funnel sponge

Poliopogon mendocino

Location Endeavour
Depth 2304 meters
Date 20 July 2011
Image ID 4
Confidence ●●○

Comments

This species, *Poliopogon mendocino*, is known only from one specimen collected from Mendocino Ridge, North California.



Undetermined species

Location Endeavour
Depth 2318 meters
Date 20 July 2011
Image ID 5
Confidence ○○○

Comments

It might not be a glass sponge. No glass sponges with this morphology are known so far from the region.



No common name

Saccocalyx pedunculatus

Location Endeavour
Depth 2324 meters
Date 10 July 2011
Image ID 6
Confidence ●○○

Comments

This is probably a specimen of the common stalked deep-water species known from off North California.



GLASS SPONGES



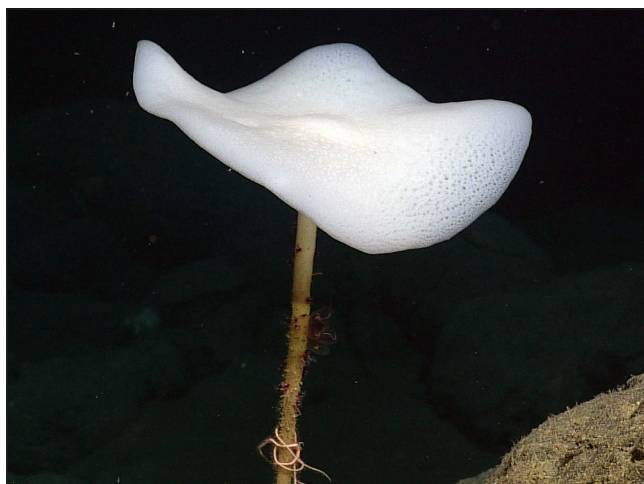
No common name

Acanthascus sp.

Location Barkley Canyon
Depth 937 meters
Date 16 September 2009
Image ID 7
Confidence ●○○

Comments

There is so far no known species in the area with this morphology.



No common name

Caulophacus sp.

Location Endeavour
Depth 2170 meters
Date 14 September 2010
Image ID 8
Confidence ●●○

Comments

There are no identified species of *Caulophacus* known from this region.



Undetermined species

Location Endeavour
Depth 2145 meters
Date 22 July 2011
Image ID 9
Confidence ○○○

Comments

It might be a demosponge.

GLASS SPONGES

No common name

Bathydorus sp. or *Staurocalyptus* sp.

Location Barkley Canyon

Depth 904 meters

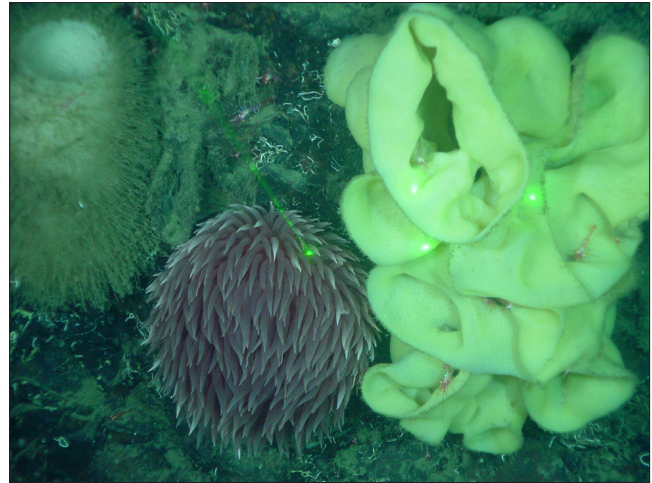
Date 8 August 2006

Image ID 10

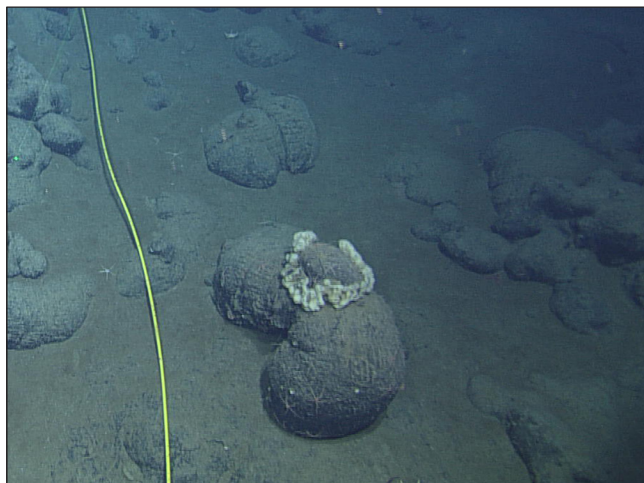
Confidence ● ○ ○

Comments

There is also a sharp-lipped boot sponge (*Rhabdocalyptus dawsoni*) on the left and a pom-pom anemone. This a good example of a common local species.



DEMOSPONGES



Undetermined species

Location Endeavour
Depth 2134 meters
Date 10 July 2011
Image ID 11
Confidence ○○○
Comments



Undetermined species

Location Barkley Canyon
Depth 402 meters
Date 23 July 2011
Image ID 12
Confidence ●○○
Comments



Undetermined species

Location Endeavour
Depth 2171 meters
Date 23 July 2011
Image ID 13
Confidence ○○○
Comments

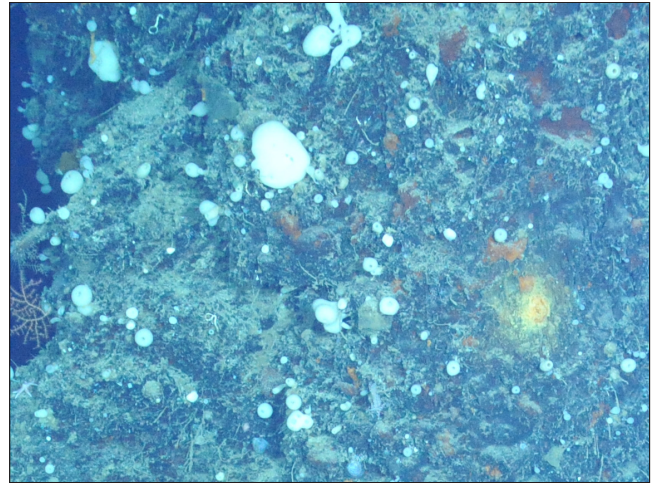
DEMOSPONGES

Undetermined species

Location Endeavour
Depth 2136 meters
Date 24 July 2011
Image ID 14
Confidence ○○○

Comments

Looks like juvenile sponges.



Undetermined species

Location Endeavour
Depth 2907 meters
Date 21 July 2011
Image ID 15
Confidence ○○○

Comments



Undetermined species

Location Endeavour
Depth 2145 meters
Date 22 July 2011
Image ID 16
Confidence ○○○

Comments

There is also brittle stars.

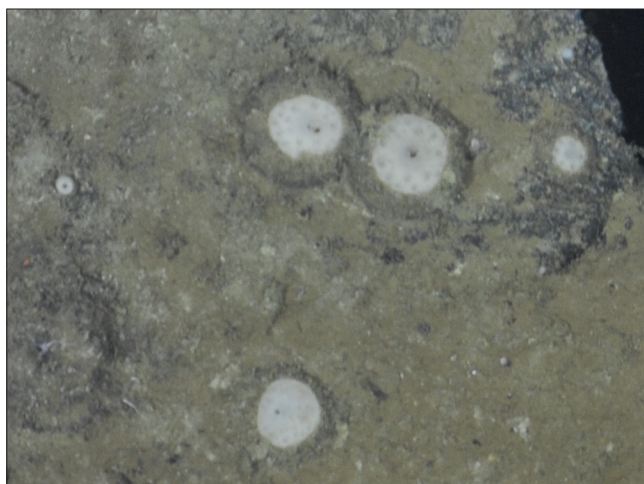


DEMOSPONGES



Undetermined species

Location Endeavour
Depth 2149 meters
Date 20 September 2010
Image ID 17
Confidence ○○○
Comments



No common name

Sphaerotylus n. sp.

Location Endeavour
Depth 2142 meters
Date 14 September 2011
Image ID 18
Confidence ●●●
Comments



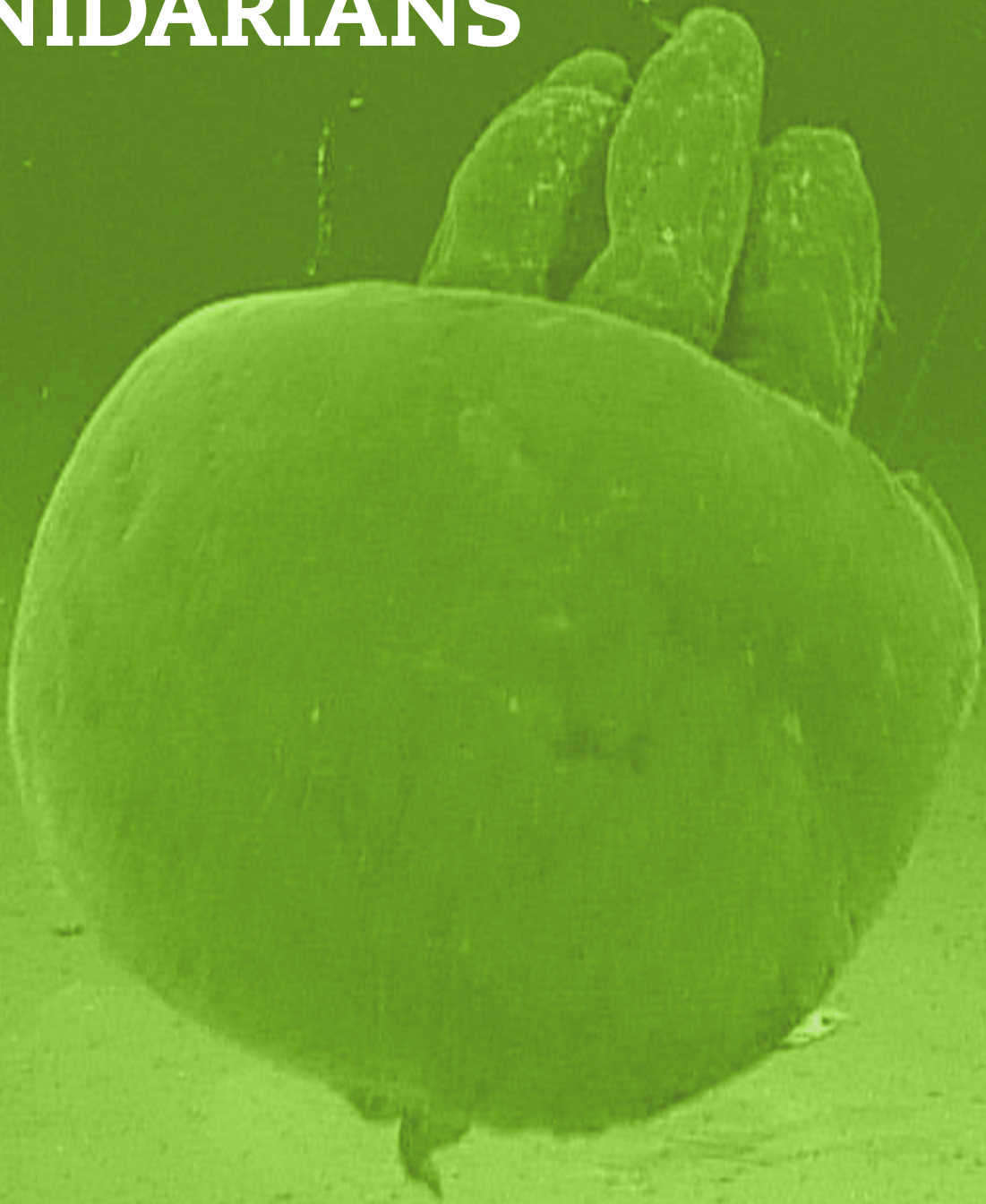
No common name

Asbestopluma sp.

Location Endeavour
Depth 2135 meters
Date 23 July 2011
Image ID 19
Confidence ●●○

Comments
Asbestopluma sp. are the white arm like structures.

CNIDARIANS



SEA ANEMONES



Undetermined species

Location Barkley Canyon
Depth 396 meters
Date 14 July 2011
Image ID 20
Confidence ○○○

Comments

Species is on a cable.



Undetermined species

Location Barkley Canyon
Depth 394 meters
Date 12 July 2011
Image ID 21
Confidence ○○○

Comments

It is a member of Actinostolidae.



Pom-Pom anemone

Liponema brevicornis

Location Barkley Canyon
Depth 398 meters
Date 13 July 2011
Image ID 22
Confidence ●●○

Comments

SEA ANEMONES

Corallimorph anemone

Corallimorphus sp.

Location Barkley Canyon
Depth 393 meters
Date 12 July 2011
Image ID 23
Confidence ●○○○

Comments

This species has been included in the sea anemone's category because of the similarity but it belongs to another order: Corallimorpharia.



Undetermined species

Location Barkley Canyon
Depth Unknown
Date July 2009
Image ID 24
Confidence ○○○○

Comments



Undetermined species

Location ODP 1027
Depth 2539 meters
Date 7 July 2011
Image ID 25
Confidence ○○○○

Comments

Species is on an instrument.



SEA ANEMONES



Undetermined species

Location Barkley Canyon
Depth 395 meters
Date 12 July 2011
Image ID 26
Confidence ○○○

Comments

The anemone is on a sea pen.



Undetermined species

Location Barkley Canyon
Depth 391 meters
Date 12 July 2011
Image ID 27
Confidence ○○○

Comments

It is a member of Actiniidae.



Undetermined species

Location ODP 1027
Depth 2623 meters
Date 7 July 2011
Image ID 28
Confidence ○○○

Comments

It might be a tube-dwelling anemone or a *Bolocera* sp. The anemone is on an cable.

SEA ANEMONES

Venus flytrap
Undetermined species

Location Unknown
Depth 1728 meters
Date 13 August 2006
Image ID 29
Confidence ○○○

Comments

It is a member of Hormathiidae.



SEA PENS



Droopy sea pen

Umbellula lindahli

Location ODP 1027
Depth 2660 meters
Date 1 September 2009
Image ID 30
Confidence ●○○○
Comments



No common name

Anthoptilum grandiflorum

Location Barkley Canyon
Depth 397 meters
Date 13 July 2011
Image ID 31
Confidence ●○○○
Comments

JELLIES

No common name

Aeginura sp.

Location Endeavour
Depth 2226 meters
Date 16 September 2011
Image ID 38
Confidence ● ○ ○
Comments



No common name

Voragonema pedunculata

Location Barkley Canyon
Depth 984 meters
Date 14 July 2011
Image ID 39
Confidence ● ○ ○
Comments



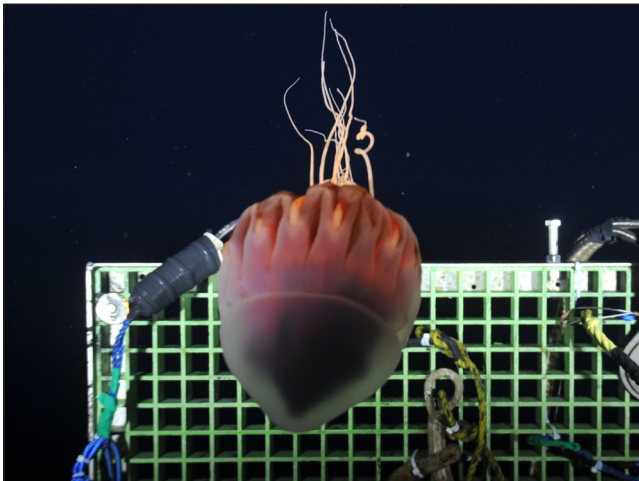
JELLIES



No common name

Poralia rufescens

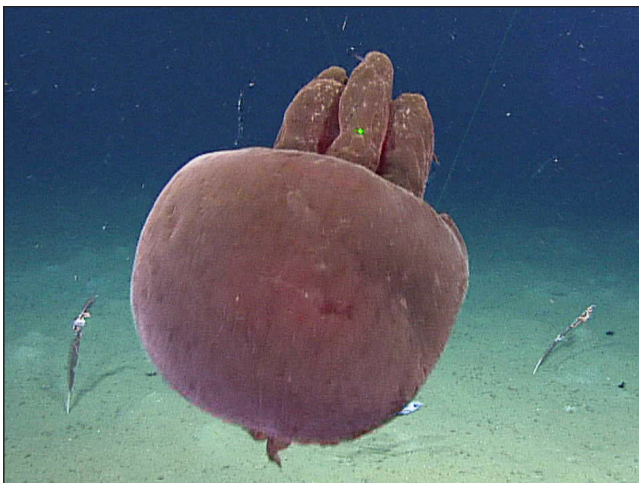
Location Barkley Canyon
Depth 985 meters
Date 14 July 2011
Image ID 32
Confidence ●●●
Comments



No common name

Paraphyllina sp.

Location OPD 1027
Depth 2162 meters
Date 5 July 2011
Image ID 33
Confidence ●○○
Comments



Big red

Tiburonia granrojo

Location ODP 889
Depth 1255 meters
Date 12 July 2011
Image ID 34
Confidence ●●●
Comments

JELLIES

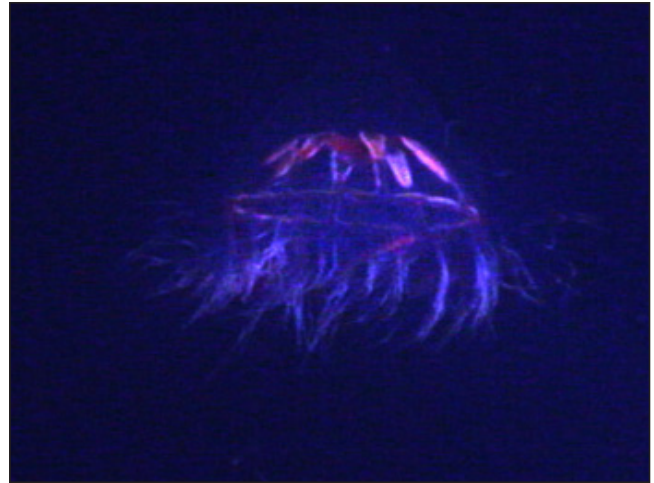
No common name

Haliscera sp.

Location Endeavour
Depth 1963 meters
Date 7 October 2010
Image ID 35
Confidence ●○○○

Comments

It needs a better picture to be able to identify the species, but it might be *Haliscera bigelowi*.



Dinner plate jelly

Solmissus sp.

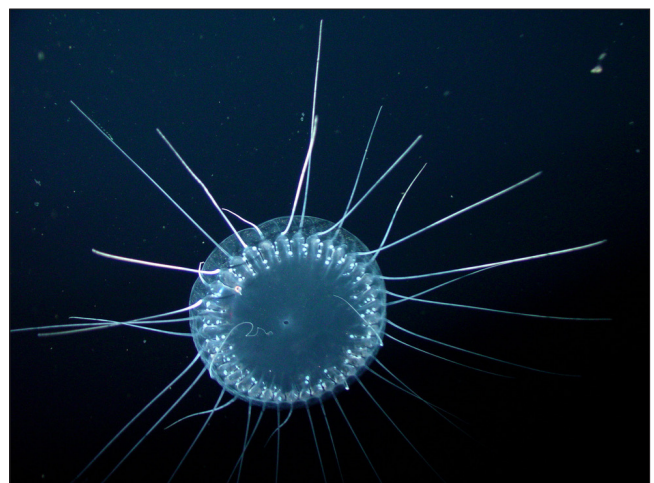
Location Endeavour
Depth 653 meters
Date 23 July 2011
Image ID 36
Confidence ●○○○

Comments

Dinner plate jelly

Solmissus sp.

Location ODP 1027
Depth 1220 meters
Date 4 September 2009
Image ID 37
Confidence ●○○○

Comments

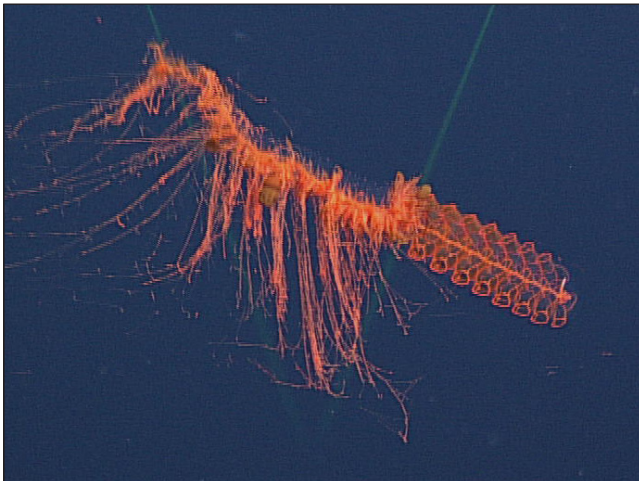
JELLIES : SIPHONOPHORES



Tailed jelly

Nanomia bijuga

Location Endeavour
Depth 29 meters
Date 10 July 2011
Image ID 40
Confidence ●●○
Comments



No common name

Marrus sp.

Location Endeavour
Depth 894 meters
Date 23 July 2011
Image ID 41
Confidence ●●○
Comments

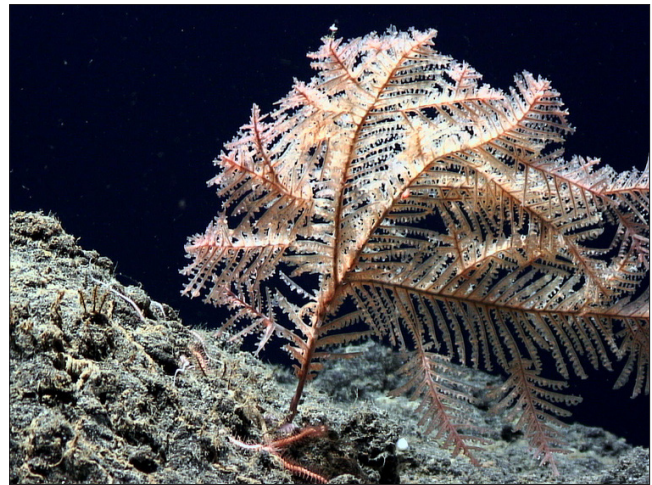
It might be *Marrus orthocanna*.

CORALS

Undetermined species

Location Endeavour
Depth 2227 meters
Date 8 October 2010
Image ID 42
Confidence ●●○
Comments

It is a member of Antipatharia.



No common name

Paragorgia sp.

Location Endeavour
Depth 2227 meters
Date 8 October 2010
Image ID 43
Confidence ●●○
Comments

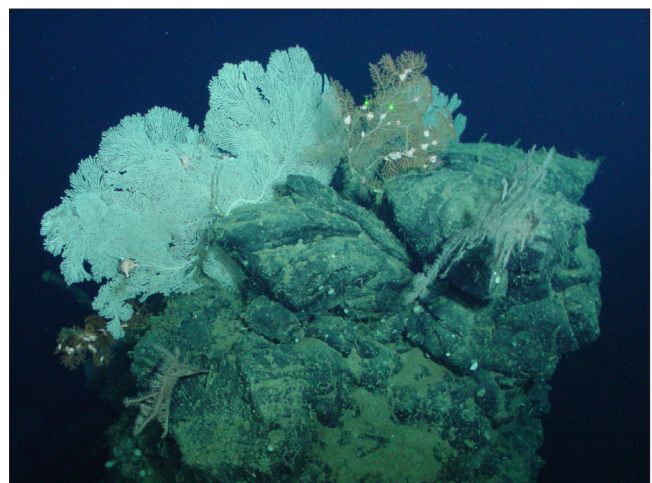


No common name

Parastenella sp., *Swiftia* sp., *Lillipathes* sp.

Location Endeavour
Depth 2279 meters
Date 7 October 2010
Image ID 44
Confidence ●●○
Comments

The white corals are probably *Parastenella* sp. The red is probably a *Swiftia* sp. Lower right are black corals, maybe *Lillipathes* sp.



CORALS



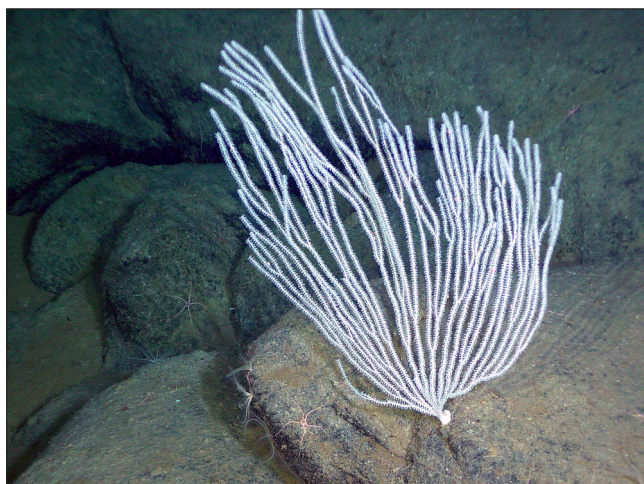
No common name

Swiftia sp. and *Parastenella* sp.

Location Endeavour
Depth 2106 meters
Date 16 September 2010
Image ID 45
Confidence ●●○

Comments

The red one is *Swiftia* sp. probably *S. pacifica* and the white is a member of Primnoid, probably *Parastenella* sp.



No common name

Parastenella sp.

Location Endeavour
Depth 2207 meters
Date 20 September 2010
Image ID 46
Confidence ●●○

Comments



No common name

Chrysogorgia sp.

Location Endeavour
Depth 2275 meters
Date 21 July 2011
Image ID 47
Confidence ●●○

Comments

It might be *Chrysogorgia pinnata*.

CORALS

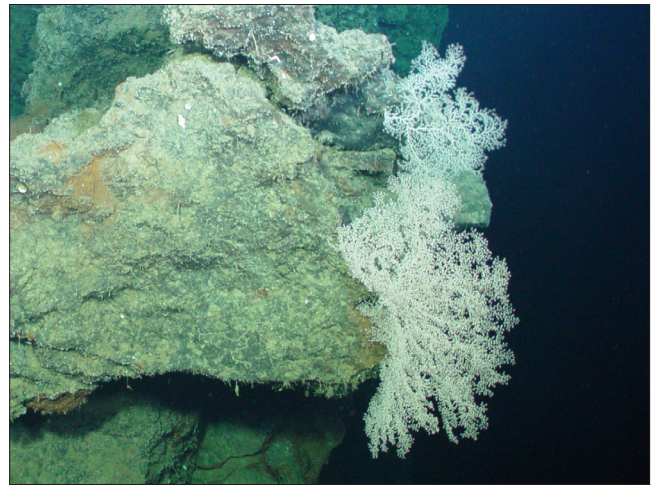
No common name

Chrysogorgia sp.

Location Endeavour
Depth 2209 meters
Date 7 October 2010
Image ID 48
Confidence ●●○○

Comments

It might be *Chrysogorgia pinnata*.

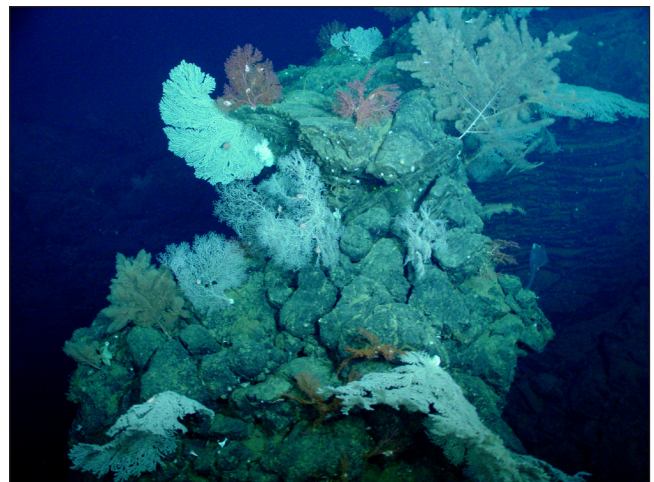


No common name

Parastenella sp., *Chrysogorgia pinnata*, *Swiftia* sp. and undetermined species

Location Endeavour
Depth 2282 meters
Date 7 October 2010
Image ID 49
Confidence ●○○○

Comments



No common name

Swiftia pacifica and *Parantipathes* sp.

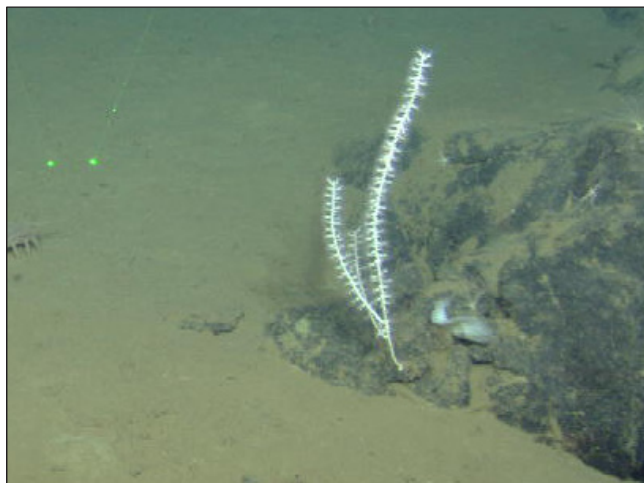
Location Endeavour
Depth 2101 meters
Date 26 September 2010
Image ID 50
Confidence ●○○○

Comments

The left one is probably *Swiftia pacifica* and the right one is a black coral, probably *Parantipathes* sp.



CORALS



Bamboo coral

Keratoisis sp.

Location Endeavour
Depth 2317 meters
Date 13 September 2011
Image ID 51
Confidence ●●○

Comments

It is a member of Isididae.

CTENOPHORES



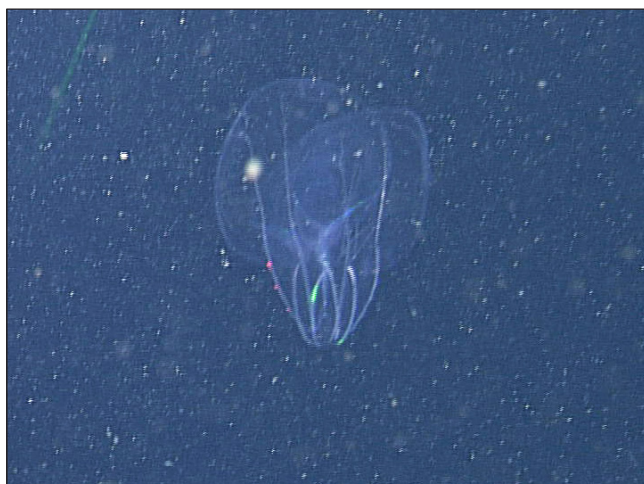
COMB JELLIES



No common name

Bolinopsis infundibulum

Location Barkley Canyon
Depth 889 meters
Date 20 September 2011
Image ID 52
Confidence ●●○
Comments



No common name

Bolinopsis infundibulum

Location Barkley Canyon
Depth 390 meters
Date 12 July 2011
Image ID 53
Confidence ●●○
Comments



No common name

Bolinopsis infundibulum

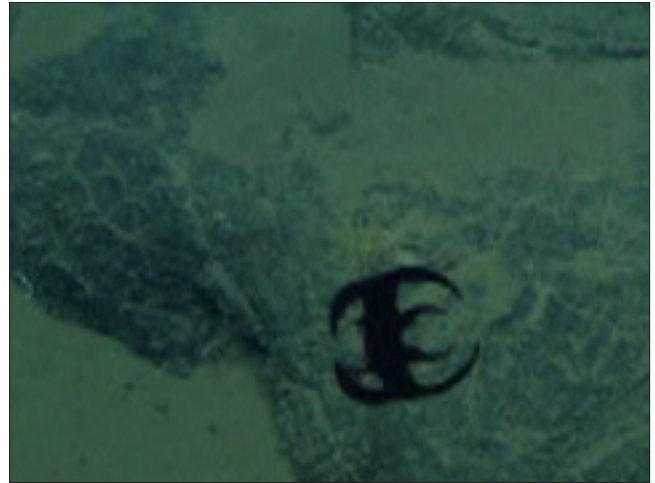
Location Barkley Canyon
Depth 884 meters
Date 20 September 2011
Image ID 54
Confidence ●●○
Comments

COMB JELLIES

No common name

Lampocteis sp.

Location Endeavour
Depth 2325 meters
Date 13 September 2011
Image ID 55
Confidence ● ● ○
Comments



Bloody-belly comb jelly

Lampocteis cruentiventer

Location Endeavour
Depth 2309 meters
Date 13 September 2011
Image ID 56
Confidence ● ○ ○
Comments



Bloody-belly comb jelly

Lampocteis cruentiventer

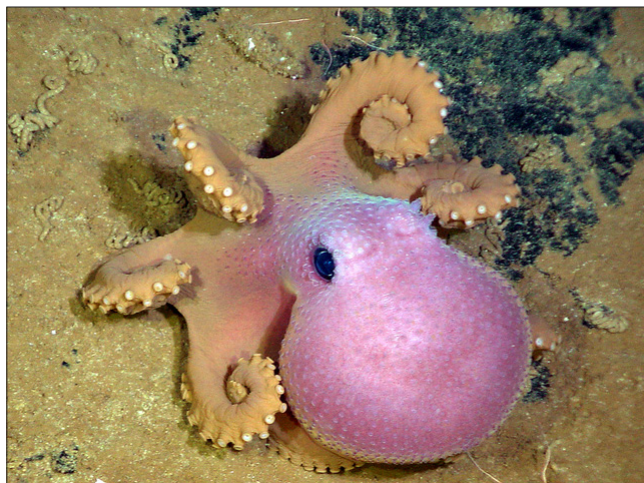
Location Endeavour
Depth 1710 meters
Date 10 July 2011
Image ID 56
Confidence ● ○ ○
Comments



MOLLUSCS



OCTOPUSES



No common name

Graneledone pacifica

Location Endeavour
Depth 2327 meters
Date 20 September 2010
Image ID 58
Confidence ● ● ●
Comments

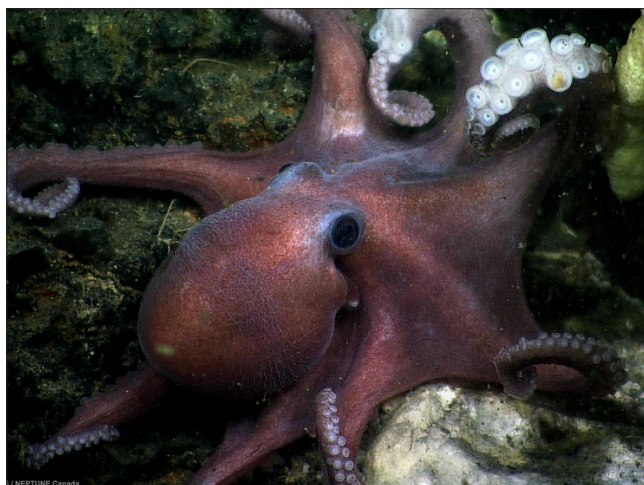


No common name

Graneledone pacifica

Location Endeavour
Depth 2313 meters
Date 6 August 2009
Image ID 59
Confidence ● ● ●
Comments

Species is on a cork.



No common name

Muusoctopus canthylus

Location Endeavour
Depth 2275 meters
Date 21 July 2011
Image ID 60
Confidence ● ● ●
Comments

OCTOPUSES

Giant Pacific octopus

Enteroctopus dofleini

Location Barkley Canyon
Depth 399 meters
Date 12 July 2011
Image ID 62
Confidence ● ● ●

Comments

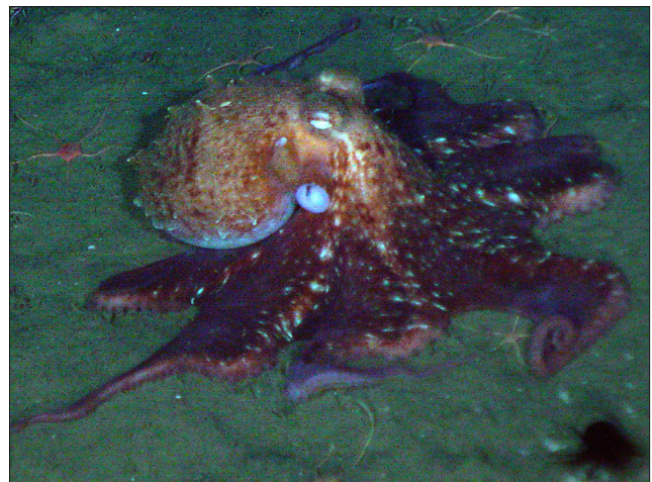
Species is on an instrument. There are also whelk eggs at the top right laid by an Oregon Triton (*Fusitriton oregonensis*).



Giant Pacific octopus

Enteroctopus dofleini

Location Barkley Canyon - survey
Depth 622 meters
Date 5 August 2007
Image ID 63
Confidence ● ● ●

Comments

SQUID



No common name

Gonatus sp.

Location Endeavour
Depth 476 meters
Date 11 July 2011
Image ID 64
Confidence ● ● ○
Comments



No common name

Gonatus sp.

Location Endeavour
Depth 1110 meters
Date 13 September 2011
Image ID 64a
Confidence ● ● ○
Comments



Boreopacific armhook squid

Gonatopsis borealis

Location Endeavour
Depth 99 meters
Date 11 July 2011
Image ID 65
Confidence ● ● ●
Comments

SQUID

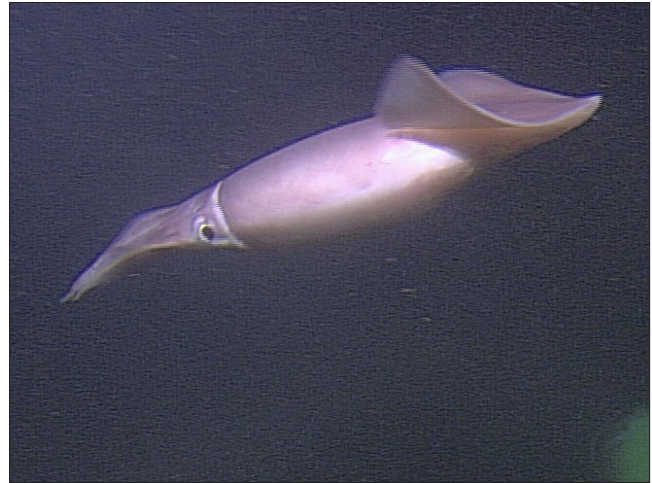
Humboldt squid

Dosidicus gigas

Location Barkley Canyon
Depth 394 meters
Date 8 September 2009
Image ID 66
Confidence ● ● ○

Comments

The Humboldt squid are not historically found in our waters. In some years, they migrate up this far north (to feed). In 2009, they were very abundant.



Cockatoo squid

Galiteuthis phyllura

Location ODP 889
Depth 445 meters
Date 12 July 2011
Image ID 67
Confidence ● ○ ○

Comments

SNAILS



No common name

Buccinum thermophilum

Location Endeavour
Depth 2273 meters
Date 21 July 2011
Image ID 68
Confidence ● ● ○

Comments

It need a higher resolution image to identify this species.



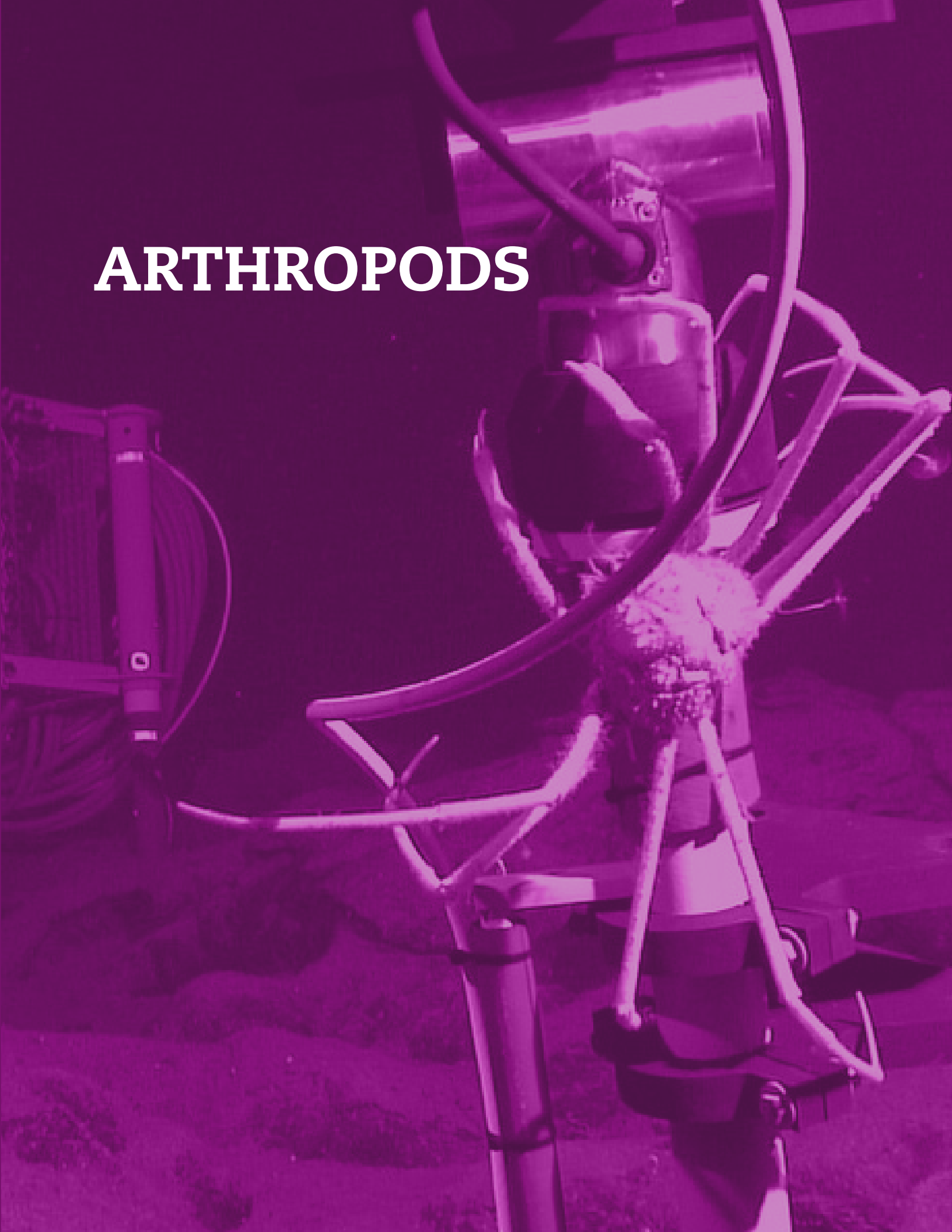
No common name

Lepetodrilus fucensis

Location Endeavour
Depth 2273 meters
Date 21 July 2011
Image ID 69
Confidence ● ● ●

Comments

ARTHROPODS



CRABS



Shortspine king crab

Paralomis multispina

Location ODP 889
Depth 1259 meters
Date 12 July 2011
Image ID 70
Confidence ●●○

Comments

3 pairs of walking legs, regular sized spines on carapace.



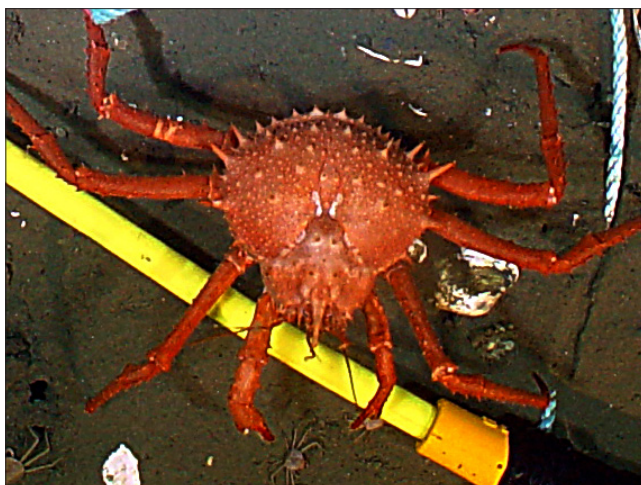
Abyssal king crab

Paralomis verrilli

Location ODP 889
Depth 1257 meters
Date 2 July 2011
Image ID 71
Confidence ●●○

Comments

3 pairs of walking legs. Species is on a platform.



Scarlet king crab

Lithodes couesi

Location Barkley Canyon
Depth 873 meters
Date 27 August 2009
Image ID 72
Confidence ●●●

Comments

3 pairs of walking legs, irregular sized spines on carapace (longer spines on the outside edge).

CRABS

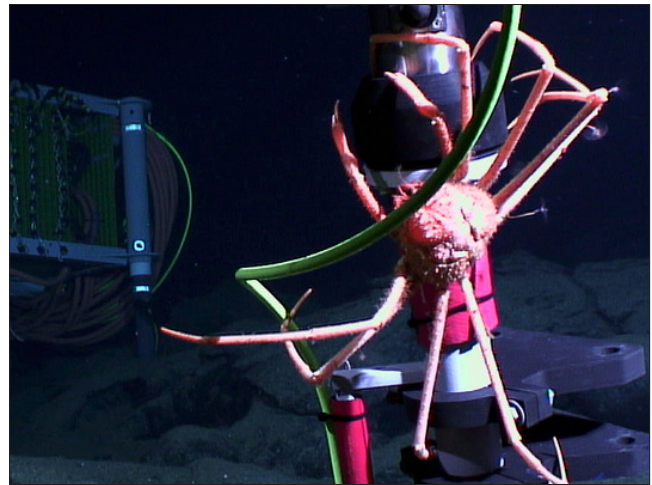
Deep-sea spider crab

Macroregonia macrochira

Location Endeavour
Depth 2195 meters
Date 22 September 2010
Image ID 73
Confidence ● ● ○

Comments

4 pairs of walking legs, they are long and slender (characteristic of all spider crabs). Species is on an instrument.



Grooved tanner crab

Chionoecetes tanneri

Location Barkley Canyon
Depth 834 meters
Date 9 August 2006
Image ID 74
Confidence ● ● ●

Comments

4 pairs of walking legs.

Squat lobster or Galatheid crab
Undetermined species

Location Endeavour
Depth 2119 meters
Date 26 September 2010
Image ID 75
Confidence ○ ○ ○

Comments

CRABS



Hermit crab Undetermined species

Location ODP 889
Depth 1271 meters
Date 10 August 2006
Image ID 76
Confidence ○○○

Comments

It is a member of Paguroidea.

SHRIMP

No common name

Pandalopsis sp.

Location Barkley Canyon - survey

Depth 1770 meters

Date 13 August 2006

Image ID 77

Confidence ● ● ○

Comments

It might be *Pandalopsis ampla*.



No common name

Pandalopsis sp.

Location Barkley Canyon - survey

Depth 615 meters

Date 12 August 2006

Image ID 78

Confidence ● ● ○

Comments

It might be *Pandalopsis dispar*.



SEA SPIDERS



Undetermined species

Location ODP 1027
Depth 2659 meters
Date 12 September 2011
Image ID 79
Confidence ○○○

Comments

It is a member of *Pycnogonida*.



No common name

Ammonothea verenae

Location Endeavour
Depth 2188 meters
Date 8 July 2011
Image ID 80
Confidence ●●●

Comments

ECHINODERMS



SEA STARS



No common name

Dytaster gilberti

Location Barkley Canyon
Depth 872 meters
Date 20 July 2011
Image ID 81
Confidence ● ● ○
Comments



No common name

Ampheraster sp.

Location Barkley Canyon
Depth 898 meters
Date 17 September 2011
Image ID 82
Confidence ● ○ ○
Comments

Species is on an cable. It is a member of Pedicellasteridae.



Pincushion star

Hippasteria sp.

Location Barkley Canyon
Depth 892 meters
Date 17 September 2011
Image ID 83
Confidence ● ○ ○
Comments

It could be one of the other Hippasterines.

SEA STARS

Undetermined species

Location ODP 889
Depth 1295 meters
Date 12 July 2011
Image ID 84
Confidence ○○○

Comments

It could be either a member of Zoroasteridae or Pedicellasteridae.



No common name

Pedicellaster sp. or *Tarsaster* sp.

Location Barkley Canyon
Depth 398 meters
Date 16 July 2011
Image ID 85
Confidence ●●○

Comments

Species is on an connector. The small white one is a member of Porcellanasteridae or possibly a member of Pterasteridae.



No common name

Rathbunaster californicus

Location Barkley Canyon
Depth 397 meters
Date 12 July 2011
Image ID 86
Confidence ●●●

Comments

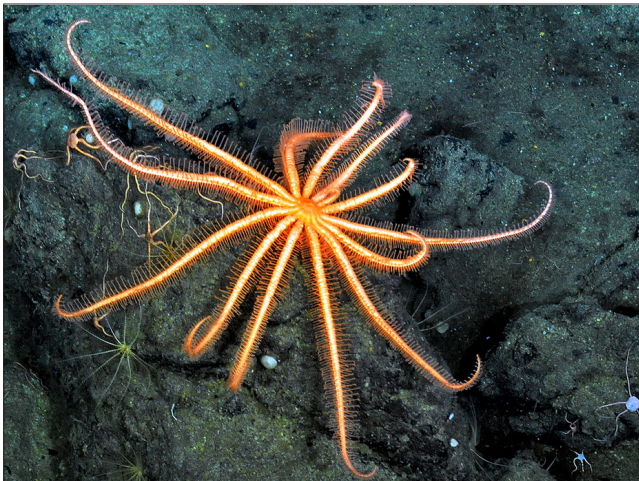
SEA STARS



No common name

Mediaster sp. or *Ceramaster* sp.

Location	Endeavour
Depth	2290 meters
Date	20 July 2011
Image ID	87
Confidence	● ○ ○
Comments	



Brisingid sea star

Brisinga sp.

Location	Endeavour
Depth	2158 meters
Date	23 July 2011
Image ID	88
Confidence	● ● ●
Comments	

BRITTLE STARS

No common name

Spinophiura jolliveti

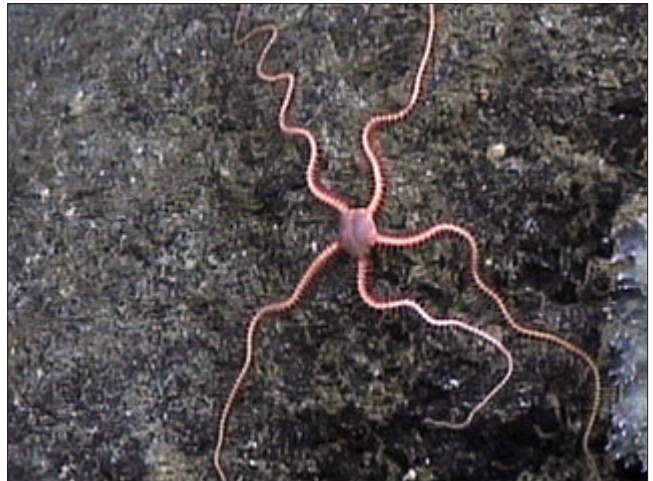
Location Endeavour
Depth 2144 meters
Date 22 July 2011
Image ID 89
Confidence ● ● ○
Comments



No common name

Spinophiura jolliveti

Location Endeavour
Depth 2149 meters
Date 20 September 2010
Image ID 90
Confidence ● ● ○
Comments

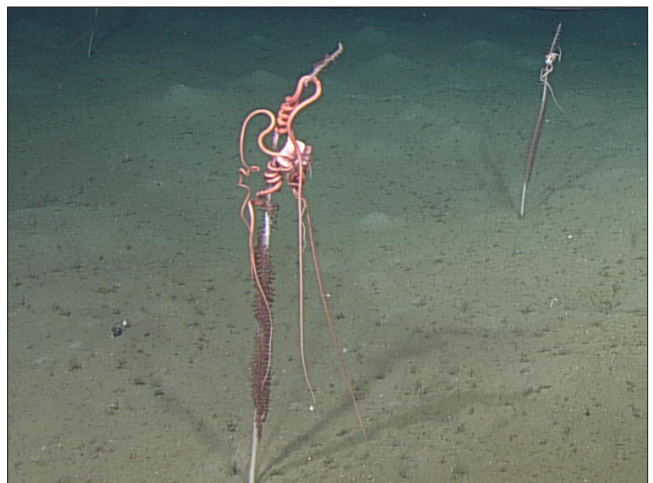


No common name

Asteronyx sp.

Location ODP 889
Depth 1258 meters
Date 12 July 2011
Image ID 91
Confidence ● ● ●
Comments

The brittle star has climbed up this sea pen. A feeding strategy to capture particles that drift past. It might be *Asteronyx longifissus* or *Asteronyx loveni*.



CRINOIDS



Feather star
Undetermined species

Location Endeavour
Depth 2145 meters
Date 22 July 2011
Image ID 92
Confidence ○○○

Comments

It is a member of Antedonidae. Feather stars refer to the unstalked forms.

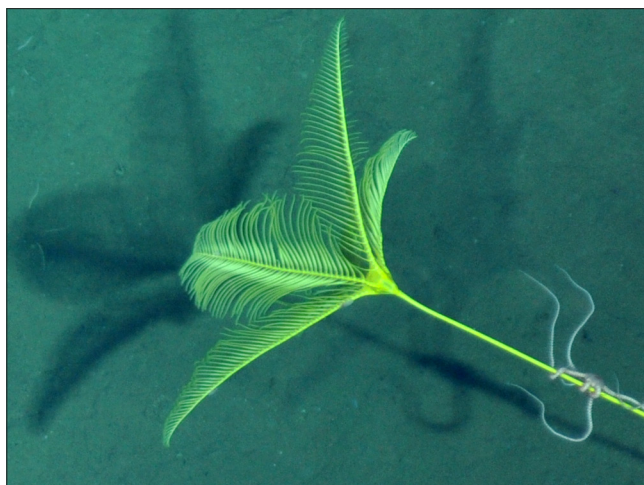


Feather star
Undetermined species

Location Endeavour
Depth 2324 meters
Date 13 September 2011
Image ID 92a
Confidence ○○○

Comments

It is a member of Antedonidae. Feather stars refer to the unstalked forms.



Yellow stalked crinoid
Hyocrinus sp.

Location Endeavour
Depth 2320 meters
Date 25 September 2011
Image ID 93
Confidence ●●●

Comments

An alternate common name is sea lily. It's a member of Hyocrinidae.

SEA URCHINS

No common name

Sperosoma sp. or *Tromikosoma* sp.

Location Endeavour
Depth 2324 meters
Date 10 July 2011
Image ID 94
Confidence ● ○ ○

Comments

It is a member of Echinothurioida.



No common name

Sperosoma sp. or *Tromikosoma* sp.

Location Endeavour
Depth 2229 meters
Date 21 July 2011
Image ID 95
Confidence ● ○ ○

Comments

It is a member of Echinothurioida.

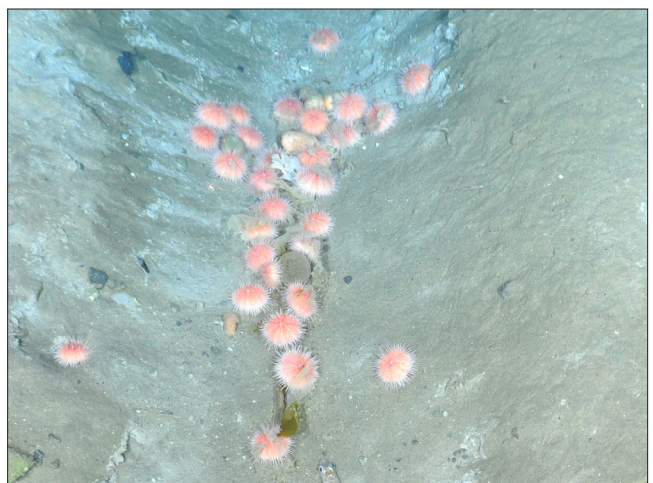


Fragile pink urchin

Strongylocentrotus fragilis

Location Barkley Canyon
Depth 375 meters
Date 16 July 2011
Image ID 96
Confidence ● ● ●

Comments



SEA CUCUMBERS



Sea pig

Scotoplanes globosa

Location Endeavour
Depth 2322 meters
Date 13 September 2011
Image ID 97
Confidence ●●●
Comments



No common name

Peniagone sp. or *Amperima* sp.

Location Endeavour
Depth 2322 meters
Date 13 September 2011
Image ID 98
Confidence ●●○
Comments



No common name

Peniagone sp. or *Amperima* sp.

Location Endeavour
Depth 2195 meters
Date 29 September 2011
Image ID 99
Confidence ●●○
Comments

SEA CUCUMBERS

Deep-sea cucumber

Pannychia moseleyi

Location Barkley Canyon - survey
Depth 588 meters
Date 5 August 2007
Image ID 100
Confidence ● ● ●
Comments



Undetermined species

Location Endeavour
Depth 2322 meters
Date 10 July 2011
Image ID 101
Confidence ○ ○ ○
Comments

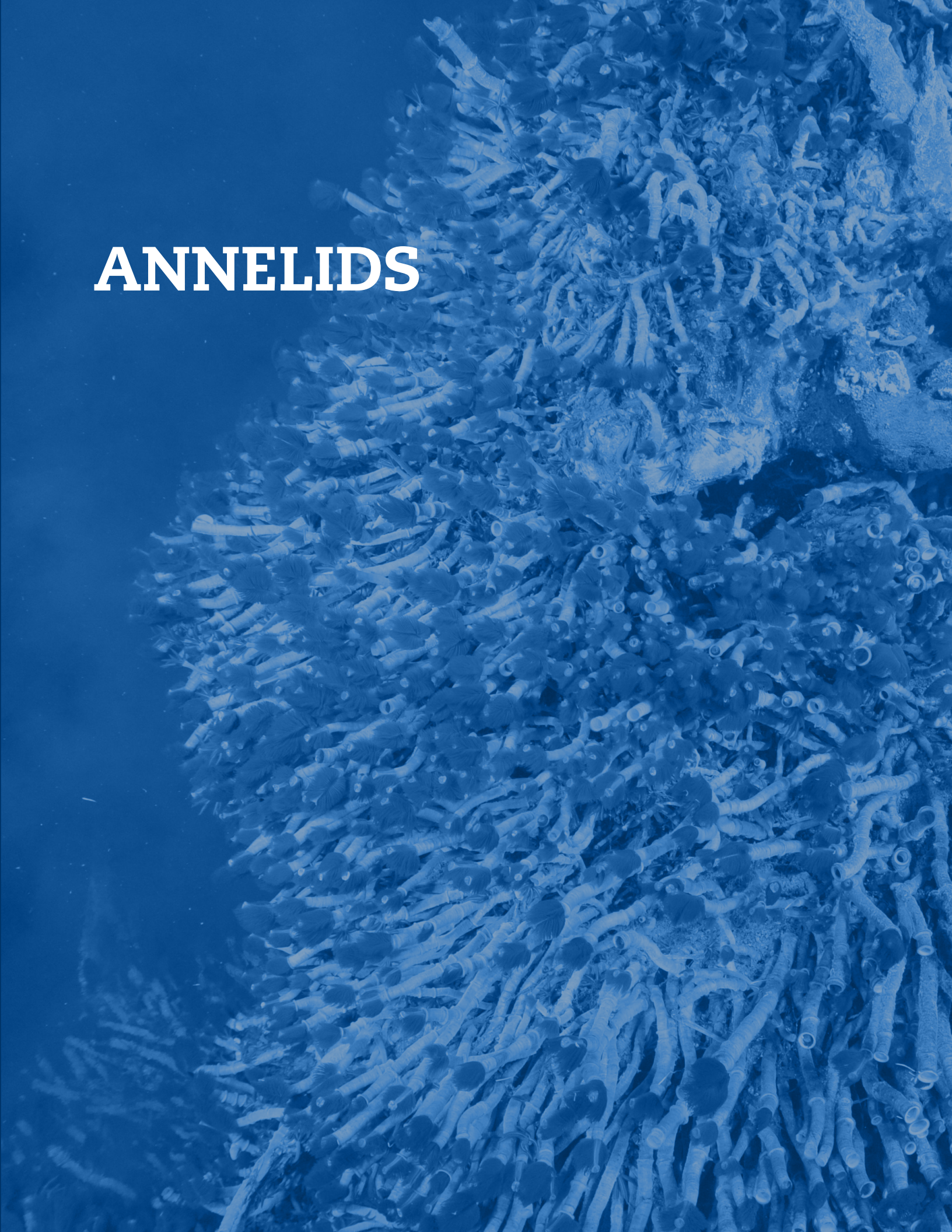


Undetermined species

Location ODP 1027
Depth 2659 meters
Date 12 September 2011
Image ID 102
Confidence ○ ○ ○
Comments



ANNELIDS



POLYCHAETES



No common name

Ridgeia piscesae (short fat)

Location Endeavour
Depth 2132 meters
Date 23 July 2011
Image ID 103
Confidence ●●●
Comments



No common name

Ridgeia piscesae (long skinny)

Location Endeavour
Depth 2164 meters
Date 19 September 2010
Image ID 104
Confidence ●●●
Comments



No common name

Branchinotogluma tunnicliffae

Location Endeavour
Depth 2273 meters
Date 21 July 2011
Image ID 105
Confidence ●●●
Comments

The pink worm in the left on this picture is *Branchinotogluma tunnicliffae*.

POLYCHAETES

Tailed Pacific transparent worm

Tomopteris sp.

Location Endeavour
Depth 535 meters
Date 23 July 2011
Image ID 106
Confidence ● ● ○
Comments

Scale worm
Undetermined species

Location Endeavour
Depth 2146 meters
Date 12 September 2011
Image ID 107
Confidence ○ ○ ○
Comments

It is a member of Polynoidae.



Green bomber worm

Swima sp.

Location Endeavour
Depth 2146 meters
Date 12 September 2011
Image ID 108
Confidence ● ● ○
Comments



CHORDATES



TUNICATES : SALPS



Undetermined species

Location ODP 889
Depth 80 meters
Date 12 July 2011
Image ID 109
Confidence ○○○

Comments

Although salps appear similar to jellies because of the simple body form and planktonic behavior, they are structurally most closely related to vertebrates, animals with true backbones.



Undetermined species

Location Barkley Canyon
Depth 30 meters
Date 16 September 2010
Image ID 110
Confidence ○○○

Comments

SABLEFISHES

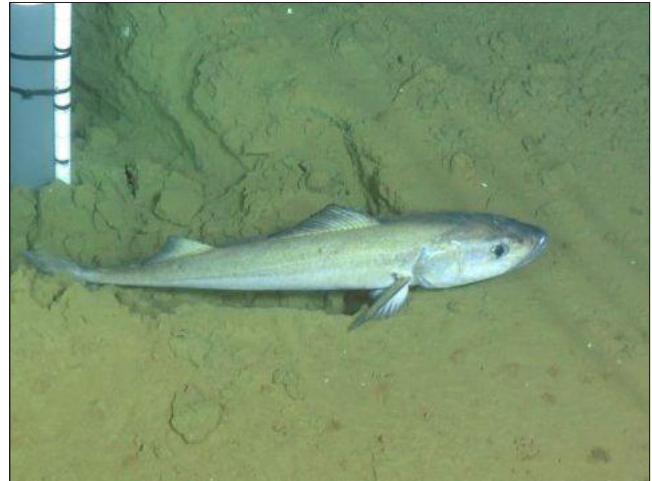
Sablefish

Anoplopoma fimbria

Location Barkley Canyon
Depth 892 meters
Date 20 September 2011
Image ID 111
Confidence ● ● ●

Comments

2 dorsal fins, broad round head, grey, common. Also called black cod.



Sablefish

Anoplopoma fimbria

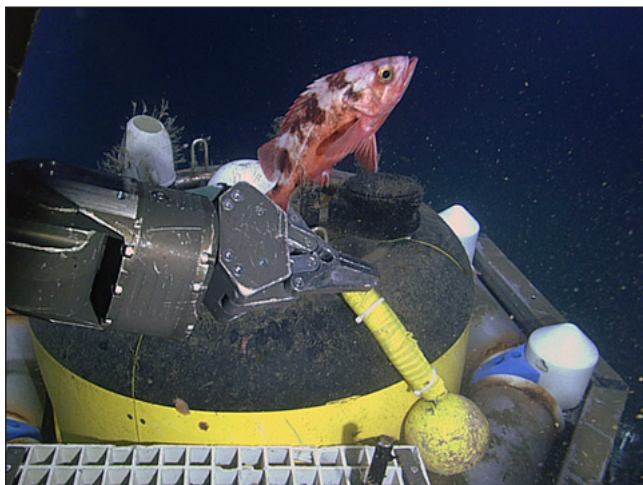
Location Barkley Canyon
Depth 892 meters
Date 14 July 2011
Image ID 112
Confidence ● ● ●

Comments

2 dorsal fins, broad round head, grey, common. Also called black cod.



ROCKFISHES



Darkblotched rockfish

Sebastes crameri

Location Barkley Canyon
Depth 390 meters
Date 14 May 2010
Image ID 113
Confidence ●●●

Comments

Large dark blotches on dorsal side, the middle body blotch makes an H, deep bodied, large schools at Barkley Upper slope were mainly darkblotched.



Pacific ocean perch

Sebastes alutus

Location Barkley Canyon
Depth 393 meters
Date 12 July 2011
Image ID 114
Confidence ●●●

Comments

Large downward facing symphyseal knob (knob on lower jaw), slender bodied, indent on head in between eyes.



Thornyhead

Sebastolobus sp.

Location ODP 889
Depth 1259 meters
Date 12 July 2011
Image ID 115
Confidence ●●●

Comments

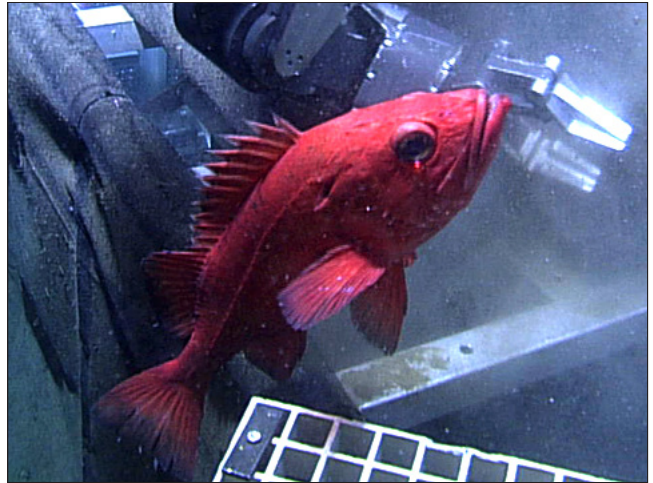
Head is 1/3 body size, usually lying on sea floor, common in deep waters. It might be a longspine thornyhead. Longspines only get up to about 20 cm long and there is one long dorsal fin spine.

ROCKFISHES

Blackgill rockfish

*Sebastes melanostomus***Location** Barkley Canyon**Depth** 400 meters**Date** 14 May 2010**Image ID** 116**Confidence** ●○○○**Comments**

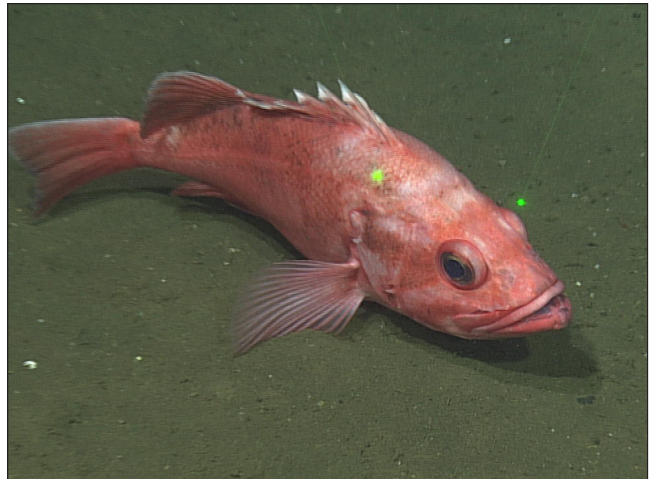
Species is on an instrument.



Vermilion rockfish

*Sebastes miniatus***Location** Barkley Canyon**Depth** 394 meters**Date** 12 July 2011**Image ID** 117**Confidence** ●●○○**Comments**

Several stripes radiating from eye, blotchy colouring, blunt, lack of symphyseal knob, broad pectoral fins.



RATTAILS (GRENADIERS)



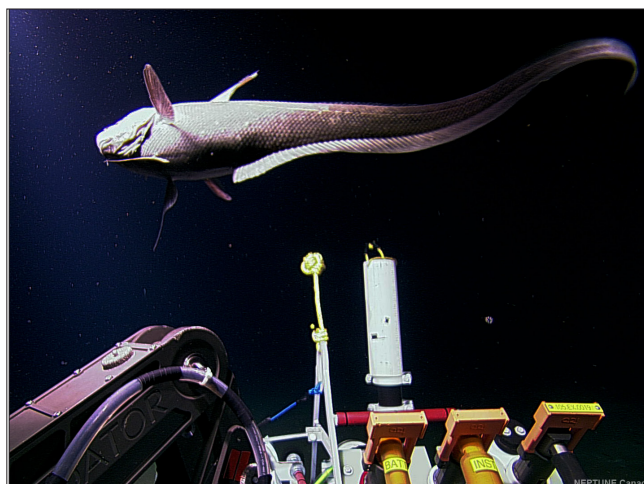
Roughscale rattail or Pacific grenadier

Coryphaenoides acrolepis

Location ODP 889
Depth 1254 meters
Date 6 September 2009
Image ID 118
Confidence ●●●

Comments

Long, thin tail that comes to a point, dorsal and anal fins extend the length of tail, barbel present on chin, very common at deep locations.

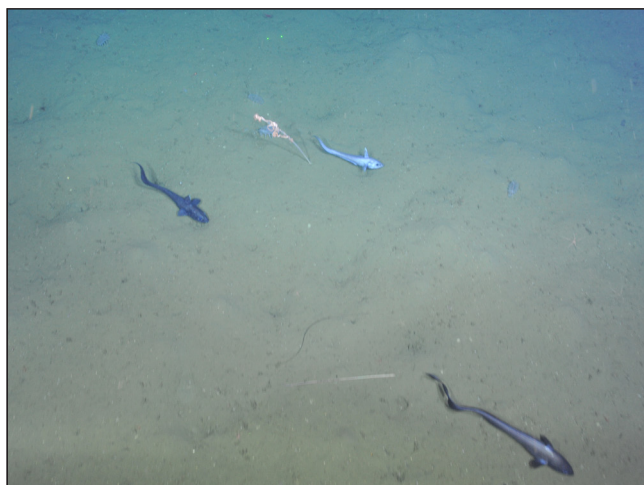


Rattail

Coryphaenoides sp.

Location ODP 1027
Depth 2660 meters
Date 14 September 2009
Image ID 119
Confidence ●●●

Comments



Rattails

Coryphaenoides sp.

Location ODP 889
Depth 1267 meters
Date 12 July 2011
Image ID 120
Confidence ●●○

Comments

That picture shows rattails with different color.

MORID CODS

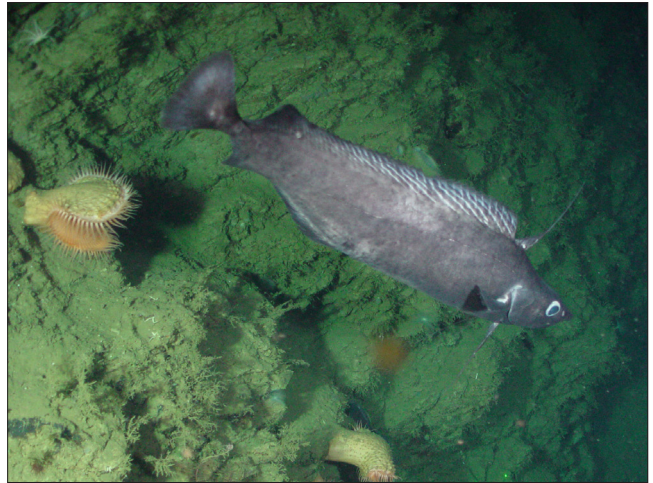
Pacific flatnose

Antimora microlepis

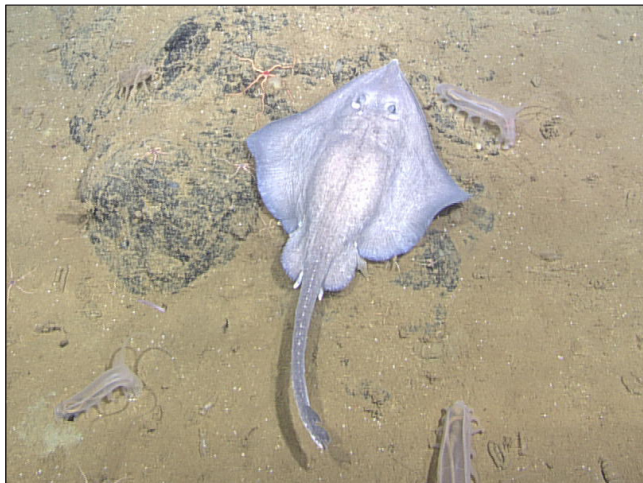
Location Barkley Canyon
Depth 1728 meters
Date 13 August 2006
Image ID 121
Confidence ● ● ●

Comments

First segment of dorsal fin is long, the rest of the dorsal fin extends to the end of the body. Slender caudal peduncle.



SKATES



Deep sea skate

Bathyraja abyssicola

Location ODP 1027
Depth 2322 meters
Date 10 July 2011
Image ID 122a
Confidence ●●○

Comments

3 spines mid dorsal.



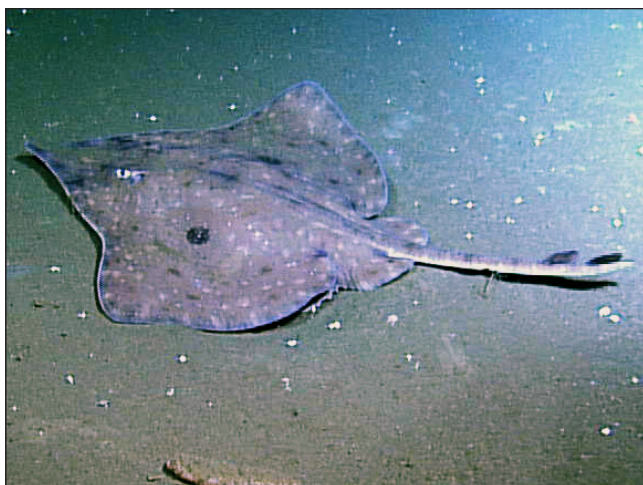
Aleutian skate

Bathyraja aleutica

Location Barkley Canyon
Depth 399 meters
Date 13 July 2011
Image ID 123
Confidence ●○○

Comments

Broad nose (not pointy). It might be a sandpaper skate (*Bathyraja interrupta*) which would have a rough surface like sandpaper (sharp scales).



Longnose skate

Raja rhina

Location Barkley Canyon
Depth 392 meters
Date 14 May 2010
Image ID 124
Confidence ●●●

Comments

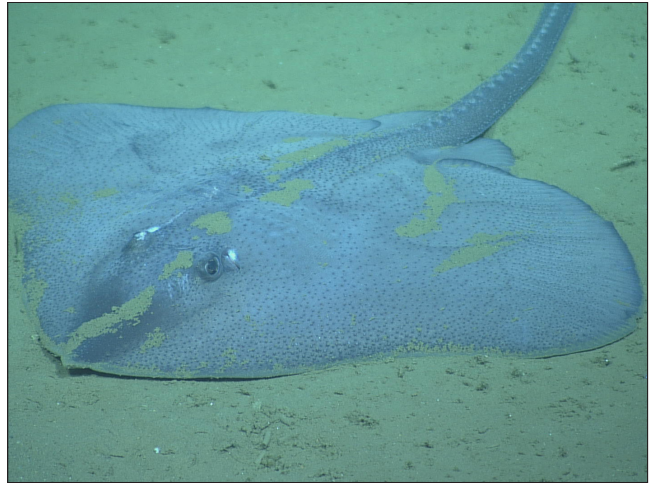
Usually 2 distinct black dots on back, Long pointy snout, ventral side grey. Very common everywhere.

SKATES

Roughtail skate

*Bathyraja trachura***Location** Barkley Canyon**Depth** 983 meters**Date** 17 May 2010**Image ID** 125**Confidence** ●●○**Comments**

Broad nose (not pointy like the longnose skate), sharp scales on surface, dorsal spines all the way down mid dorsal line.



RIGHT EYE FLOUNDERS



Deep sea sole

Embassichthys bathybius

Location Barkley Canyon
Depth 873 meters
Date 17 September 2011
Image ID 126
Confidence ●●●

Comments

Very round body, short caudal peduncle. Middle section of body is very compressed and creates distinct lines on dorsal and ventral sides. Large eyes, usually a dark purple color with lots of spots.



Dover sole

Microstomus pacificus

Location Barkley Canyon
Depth 396 meters
Date 13 July 2011
Image ID 127
Confidence ●●●

Comments

More slender body than deep sea sole, very "puffy" eyes, can be many different colors, they are slimy if you ever get to hold one. Fairly common.



Pacific halibut

Hippoglossus stenolepis

Location Barkley Canyon
Depth 397 meters
Date 14 September 2010
Image ID 128
Confidence ●●●

Comments

Very thick body (can get very large, more than 100 pounds), double crescent shape to tail, ventral side is white, fairly common.

RIGHTEYE FLOUNDERS

Rex sole

Glyptocephalus zachirus

Location Barkley Canyon

Depth 396 meters

Date 12 July 2011

Image ID 129

Confidence ● ● ●

Comments

Slender body, pectoral fin is long and wispy (like a witch's hat).



HAGFISHES



Hagfish

Eptatretus sp.

Location Barkley Canyon
Depth 866 meters
Date 18 September 2011
Image ID 130
Confidence ● ● ●

Comments

It might be *Eptatretus stoutii*. Long slender bodies like a snake, can be attached to fish, often found curled in a ball, very common in Barkley Canyon.



Hagfish

Eptatretus sp.

Location Barkley Canyon
Depth 401 meters
Date 12 July 2011
Image ID 131
Confidence ● ● ●

Comments

Long slender bodies like a snake, can be attached to fish, often found curled in a ball, very common in Barkley Canyon.

BUTTERFISHES

Pacific pompano

Peprilus simillimus

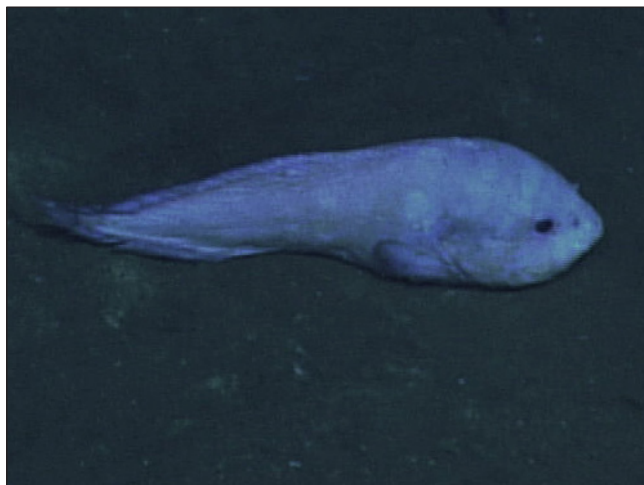
Location Endeavour
Depth 60 meters
Date 25 September 2011
Image ID 132
Confidence ●●○

Comments

Shaped like a tuna. Caudal fin deeply forked, very compressed body, long low dorsal and anal fins.



SNAILFISHES



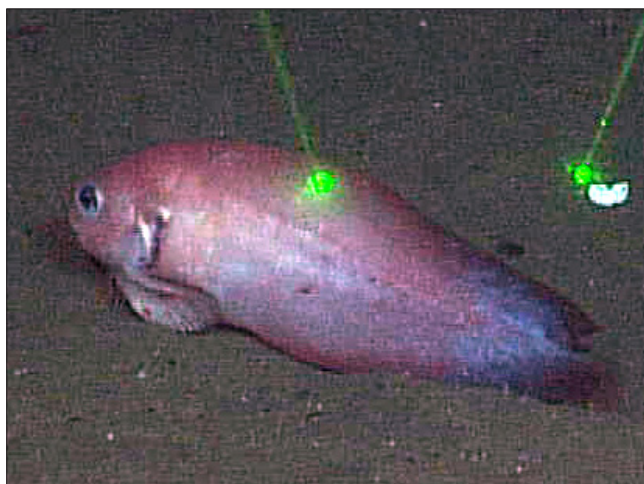
Abyssal snailfish

Careproctus ovigerus

Location ODP 1027
Depth 2658 meters
Date 12 May 2010
Image ID 133
Confidence ●●○

Comments

Easily recognizable with a distinct body shape.



Blacktail snailfish

Careproctus melanurus

Location Barkley Canyon
Depth 385 meters
Date 13 July 2011
Image ID 134
Confidence ●●●

Comments

Pink with black tail. "Flabby" looking fish, and very broad pectoral fins.

POACHERS

Blackfin poacher

*Bathyagonus nigripinnis***Location** Barkley Canyon**Depth** 396 meters**Date** 18 July 2011**Image ID** 135**Confidence** ●●○**Comments**

Black fins (caudal, pectoral, and dorsal), scales are replaced by spine bearing plates, length to 20 cm, large eye.



EELPOUTS



No common name

Licenchelys sp.

Location Barkley Canyon
Depth 900 meters
Date Unknow
Image ID 136
Confidence ●○○

Comments

Long slender bodies, with dorsal fin extending the length of the body, underside of the head is flattened (bottom dwelling fish).



No common name

Pyrolycus sp.

Location Endeavour
Depth 2273 meters
Date 21 July 2011
Image ID 137
Confidence ●●○

Comments



Undetermined species

Licenchelys sp.

Location Barkley Canyon
Depth 890 meters
Date 14 July 2011
Image ID 138
Confidence ●●○

Comments

MOLAS

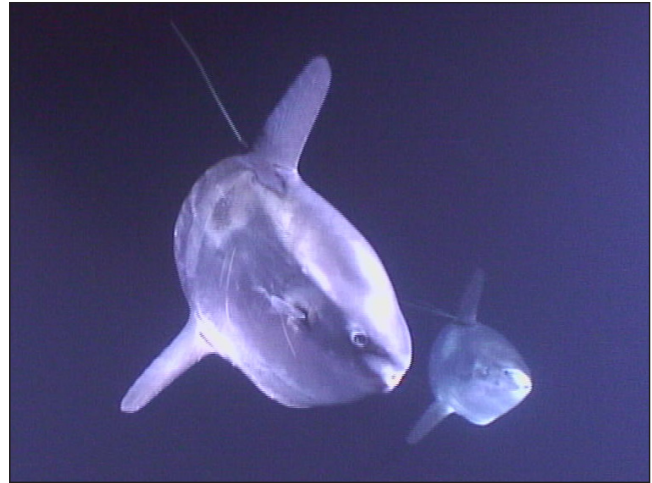
Ocean sunfish

Mola mola

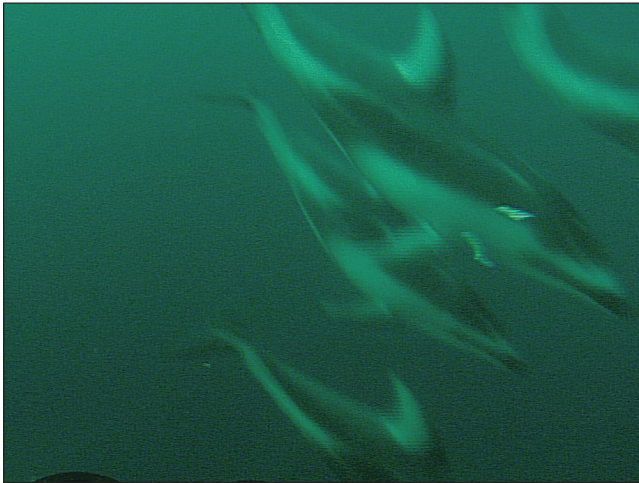
Location Endeavour
Depth 21 meters
Date 2 October 2011
Image ID 139
Confidence ● ● ●

Comments

Very large fish (this is a juvenile), at the surface these fish lay horizontally, dorsal and ventral fins are far back on the body.



CETACEANS



Pacific white sided dolphins

Lagenorhynchus obliquidens

Location	Barkley Canyon
Depth	21 meters
Date	27 August 2009
Image ID	140
Confidence	● ● ●
Comments	

OTHER





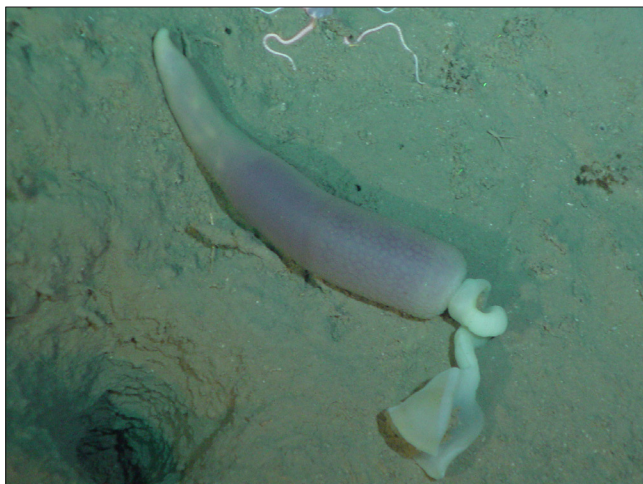
Acorn worm

Undetermined species

Location Endeavour
Depth 2206 meters
Date 7 October 2010
Image ID 141
Confidence ● ● ●

Comments

It is a member of Torquaratoridae.



Pink spoon worm

Arhynchite pugettensis

Location Barkley Canyon
Depth 1775 meters
Date 13 August 2006
Image ID 142
Confidence ● ● ○

Comments

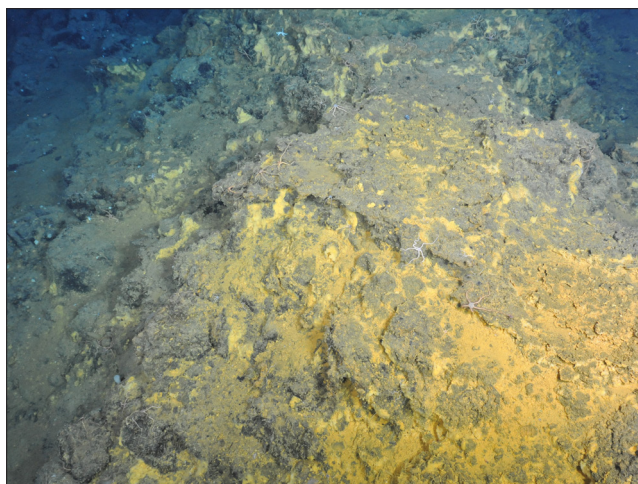
Bacterial mat

Location Endeavour
Depth 2196 meters
Date 29 September 2011
Image ID 143
Confidence ● ● ●
Comments



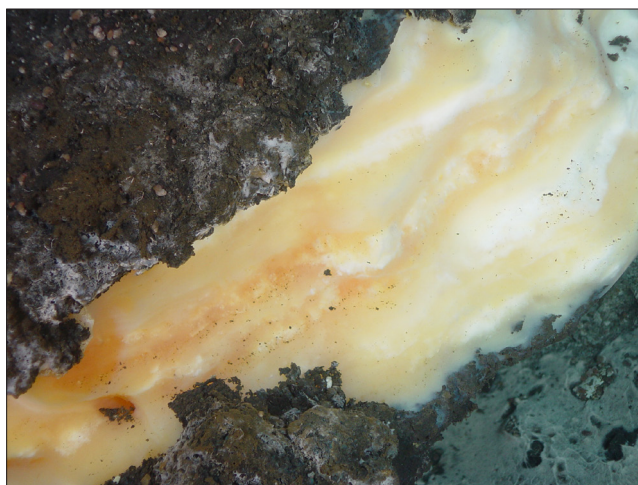
Sulphides

Location Endeavour
Depth 2161 meters
Date 23 July 2011
Image ID 144
Confidence ● ● ○
Comments



Methane hydrates

Location Barkley Canyon
Depth 862 meters
Date 9 August 2006
Image ID 145
Confidence ● ● ●
Comments



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